Thinking Outside the Box Office: A Learning Object for Curriculum Resources or Blockbuster Meets Academia

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Abstract: This presentation describes a learning object for the management of curriculum resources, specifically to provide customized access to alternative materials for students' use in course projects and assignments. Developed through the collaboration of a content provider and a designer, this reusable tool incorporates feature films for use in academic coursework. The content provider can update data in real-time and students using the database can sort results according to different points of access (by title, by theme, etc.). *Business Ethics in the Movies* (a database and web site) is demonstrated and the context for the creation of this data management tool is discussed. Other possible applications of the database template will also be presented.

Background

While planning her involvement in an upcoming Business Ethics course, the content provider decided to engage student thought by emphasizing feature films that depict business ethics at work. After determining that a list of business ethics movies was not already available, the content provider created her own list. She wanted to allow students to sort the movies in the list by title, date, theme, type of business, and literary source, and planned to continue adding titles as she became aware of them.

One option was to create several static html files – each one arranged differently to display the content/data accordingly. Though this approach was workable, it quickly became apparent that maintenance of these static files could become a nightmare – an addition or deletion of one title would necessitate changes in multiple files and therefore was considered too time-consuming.

The designer and content provider agreed that they wanted to create a more practical approach. Both felt that the project needed to be arranged so that the content provider (rather than the web designer) could add or edit content quickly and without having to know a high-level of coding/programming. The solution was a database-driven site design using secured administration and input forms. The collaborators recognized they could create this as a learning object.

Advantages of Learning Objects

A learning object can be defined as any digital resource that can be reused to support learning; a self-contained unit that can be aggregated; an entity tagged with metadata for easy retrieval. The learning object we created is a dynamic format for indexing and displaying materials that has four major advantages: it saves time, it is completely customizable, it can be maintained by the content provider(s), and it can be created and used collaboratively.

Time-saving.
The database template saves the **web designer's** time because it is adaptable to a wide variety of situations and, once set-up, the data can be easily maintained (edited, added, deleted) by the content provider(s).

The database saves the **content provider's** (instructor, teaching assistant, librarian) time because materials can be quickly identified, gathered, and differentiated in the most useful manner (date, critical reviews, categories, length, themes, styles, etc.). Attributes of the items in the database are entered in one location, and they appear on all of the sorted lists, *eliminating the need to create numerous lists of materials.*

The database saves the **students'** time because a specific group of materials is isolated from all others that are available. Items within the group can be differentiated and sorted for ease of selection and use. The database can be accessed remotely by simultaneous users.

Customizable.
Some examples of the use of the database template to customize access to class research materials might include…

- Case studies on international negotiation that can be sorted by size of company, location, groups involved, type of industry, date of case.
- Works of Andy Warhol that can be sorted by medium, date, style, reviews, and reproductions (books, exhibition catalogs, slides or digital).
- A list of zoonotic diseases (transmitted to humans by animals), that can be sorted by date of outbreak, date of diagnosis, geographic areas involved, animal transmitter, prevention or cure.
- Educational and psychological tests that are currently authorized for school age populations that can be sorted by age, grade level, abilities or disabilities tested, links to descriptions, publisher, and availability.

The database examples above could be created by the instructor, or by students using data from their research. (The instructor or a teaching assistant could maintain the database). The databases could be expanded each time the course is offered by adding new information. The experience of knowledge creation and management could be another dimension for the students' research and class participation.

Maintenance.
Content providers experience no learning curve. The administration page displays site use statistics to the content provider. It also displays current, viewable content, and allows compete flexibility in terms of adding, deleting or updating information. All categories, including theme and business type are completely customizable through the web-based form. The access to this administration page allows for secure, remote access, through use of Coldfusion cookies.

Collaborative.
Once the database design is created to suit the needs of the users, all of the data can be input by content provider(s) who have access to the administrative page. The database can be populated quickly through the work of many contributors, even if those persons are on different campuses or in different parts of the world.

Technical Description and Potential Adaptations

The backend of the demonstrated web database utilizes Microsoft Access. For larger databases, Microsoft SQL Server, Oracle, or the open source, MySql can be used. Since our campus has a license for Macromedia's Coldfusion, we employed it as our scripting language to call from the database. Similar calls can be made with a variety of languages, including Perl, ASP, and PHP.

As the site was created, we paid careful attention to usability and accessibility. The web pages created by the Coldfusion were all validated according to the World Wide Web Consortium's html 4.01 transitional standards, and accessibility was measured against the Web Accessibility Initiative (WAI).

The database template is fairly adaptable for various types of media and resources. Several tables were created for the database template. Several of the entity relationships were many-to-many to allow for multiple attributes within each field. This provided the content provider with maximum flexibility in terms of resource classification.

Conclusion

Because of changes in teaching and learning, and increases in distance learning and student use of the Web for research, there is a need to delineate materials that are most appropriate for student use--they are no longer "in the library." The learning object we created for the management of curriculum resources has several advantages: it saves time, it is completely customizable, it can be maintained by the content provider(s), and it can be created and used collaboratively.

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